

REMARKS

By this Amendment, Applicant amends claims 1 and 9-12 for clarity and not for reasons related to patentability. No new matter is introduced. Claims 1 and 6-12 remain pending in this application.

In the Office Action mailed February 26, 2004, the Examiner rejected claims 1 and 6-12 under 35 U.S.C. § 103(a) as unpatentable over Yamamoto et al. (U.S. Patent No. 5,755,620) in view of Inoue et al. (U.S. Patent No. 6,217,445) and Oka et al. (U.S. Patent No. 6,141,025). Applicant respectfully traverses the rejections.

To establish a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a), the Examiner must demonstrate each of three requirements. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. See M.P.E.P. § 2143.01 (8th ed. 2001). Third, a reasonable expectation of success must exist. See M.P.E.P. § 2143.02 (8th ed. 2001). Moreover, each of these requirements must be found in the prior art, not in applicant's disclosure. See M.P.E.P. § 2143 (8th ed. 2001).

Applicant's claim 1 is directed to a game device comprising a combination of features including, among other things, "pre-reading means for pre-reading said background data from said storage means by establishing an area for pre-reading which includes: setting a predetermined angle-of-visibility based on a direction of the moving object, setting a limit-line of a visual field at a predetermined distance towards a front of the visual field, and setting a pre-reading start line at a predetermined distance beyond

a front of the limit-line of the visual field, wherein said storage means stores said background data by dividing said background data into a plurality of areas in advance,” “said pre-reading means comprising judging means for judging which of said areas said pre-reading line is crossing, and reading means for reading the background data of the area judged as being crossed with said pre-reading line by the judging means,” and “said game device further comprising counting means for detecting whether said moving object exists within said areas corresponding to memory blocks storing background data, or an area that exists within the visual field, in said work memory, and counting said moving object or visual field area periodically.” Yamamoto, Inoue, and Oka, taken alone or in combination, do not disclose or suggest at least these features.

By contrast, Yamamoto discloses estimating the behavior of a car to simulate the car's motion in a virtual space. See col. 5, lines 22-37. During processing, polygons for a running road and a background are divided into areas along the running road. The current position of a player's car is examined and, for a plurality of areas formed by divisions along the running road, a processor determines if the player's car belongs to a specified one of the areas (AR_n). The processor determines whether a maximum number of polygons is reached in an AR_n. If not, the processor reads more polygons from AR_n+1, AR_n+2, etc., until reaching the maximum number of polygons. See col. 13, lines 6-22. In other words, polygons are read out of memory until the maximum number of displayable polygons is reached. However, this processing occurs when the object, such as the player's car, travels a defined course, such as a road, so that the polygons forming the background are known in advance.

The Examiner admits Yamamoto “lacks a full disclosure of the claimed limitation that ‘said game device further comprising counting means for detecting whether said moving object exists within said areas corresponding to memory blocks storing background data, or an area that exists within the visual field, in said work memory, and counting said moving object or visual field area periodically....’” (Office Action, pages 5-6). In addition, the Examiner admits Yamamoto “lacks full disclosure of the claim limitation that said reading means includes means for judging whether one or more of said memory blocks of said work memory are vacant space or not, and means for successively storing the background data of said crossed area in said integral number n of said memory blocks when said integral number of said memory blocks are judged as vacant space and of sufficient capacity to store the background data.” However, Inoue and Oka do not make up for the deficiencies of Yamamoto.

Inoue discloses counting the number of vehicles present in a specified area, such as within a certain distance from a player’s vehicle, or by using converted two-dimensional coordinate data, and adjusting the number of vehicles that appear in the specified area. In particular, Inoue discloses calculating the total number of automobiles, and thereafter, determining whether to introduce a new automobile into an oncoming lane. See col. 12, lines 1-7. Inoue, however, does not disclose or suggest at least “said game device further comprising counting means for detecting whether said moving object exists within said areas corresponding to memory blocks storing background data, or an area that exists within the visual field, in said work memory, and counting said moving object or visual field area periodically,” as recited in claim 1.

Instead, Inoue merely discloses counting the number of vehicles that are being displayed.

Oka discloses storing data in a first-in-first-out (FIFO) memory that is provided between a frame buffer and a graphic engine separated from a cache memory. Content is pre-read from the FIFO memory and data is read from the same page in the frame buffer (DRAM) so that access between the cache memory and the DRAM becomes more efficient and content can be drawn with greater speed. See Abstract. However, Oka does not disclose or suggest at least "said game device further comprising counting means for detecting whether said moving object exists within said areas corresponding to memory blocks storing background data, or an area that exists within the visual field, in said work memory, and counting said moving object or visual field area periodically," as recited in claim 1.

Accordingly, for at least the above reasons, Applicant respectfully requests the Examiner to allow claim 1. Claims 6-10 and 12 depend from allowable claim 1 and are allowable at least due to their dependencies. Independent claim 11, while of a different scope, includes recitations similar to those of allowable claim 1. For at least the above reasons, Applicant respectfully requests the Examiner to allow claims 6-12.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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